

Rockford, Winnebago Co., Ill.: the river froze over on the 21st; the ice broke up and moved out on the 26th and the river froze over again on the 28th.

Duluth Bay.—Duluth, Minn.: the bay froze over on the 25th; navigation closed on the 27th.

HIGH TIDES.

Chicamomico, N. C.: high tide occurred on the 2d, causing some damage to telegraph lines.

High tide also occurred at this station on the 30th; and at Duke, Fla., 30th.

ATMOSPHERIC ELECTRICITY.

AURORAS.

Auroras were observed during the month as follows: 8th, Cornish, Eastport, Gardiner, Kent's Hill, and Orono, Me.; Nashua, N. H.; Plattsburg Barracks, N. Y.; Burlington and Northfield, Vt. 9th, Cornish, Eastport, and Kent's Hill, Me.; North Truro, Mass. 12th and 13th, Kent's Hill, Me. 14th, Wytheville, Va. 15th, Nashua, N. H.; Variety Mills, Va. 17th, Fort Sully, Dak.; Orono, Me. 18th, Kent's Hill, Me. 19th, Bismarck and Webster, Dak.; Duluth, Moorhead, and Saint Vincent, Minn. 20th, Fort Sully and Webster, Dak. 21st, Fort Sully and Huron, Dak. 22d, Fort Sully, Dak.

THUNDER-STORMS.

Thunder-storms were reported as follows:

4th, Sacramento and Willows, Cal. 5th, Vashon, Wash. 8th, Key West, Fla.; Emporia, Fort Hays, Globe, Leavenworth, Lebo, Wakefield, Ninnescah, and Yates Centre, Kans.; Lamar and Springfield, Mo.; De Soto, Nebr. 9th, Butlerville, Sunman, and Vevay, Ind.; Fort Gibson, Ind. T.; Fort Madison and Keokuk, Iowa; Leavenworth, Kans.; Louisville, Ky.;

Fayette, Saint Louis, and Forest Park, Mo.; Cincinnati, College Hill, Columbus, and Yellow Springs, Ohio; Milan, Tenn. 10th, Albia, Iowa; Cleveland, Ohio. 11th, Albany and Yaquina Light House, Oregon; Corpus Christi, Tex.; Blakely, Fort Canby, Olympia, Port Angeles, and Pysht, Wash. 13th, Archer, Fla.; Moorhead, Minn. 14th, Titusville, Fla.; Dover, N. J.; Syracuse, N. Y.; Southport, N. C.; Stateburg, S. C.; Macon, and Lynchburg, Va. 15th, Lynchburg, Va. 18th, Archer and Cedar Keys, Fla.; Quitman, Ga. 19th, Archer, Fla.; Oskaloosa, Iowa; Wilmington, N. C.; Variety Mills, Va. 23d, Yuma, Ariz.; Lead Hill and Little Rock, Ark.; Cairo, Ill.; Corsicana, Palestine, and San Antonio, Tex. 24th, Utica, N. Y.; Fort Concho, Cleburne, and Abilene, Tex. 25th, Fort Niobrara, Nebr.; Cedar Hill, Tex. 26th, Lead Hill, Ark.; Jacksonville and Springfield, Ill.; Indianapolis, Ind.; Dubuque, Iowa; Frankford, Forest Park, and Springfield, Mo.; Fort Niobrara, Nebr.; Cedar Hill, Cleburne, Corsicana, Decatur, Mesquite, Palestine, and San Antonio, Tex. 27th, Cairo, Ill.; State College, Pa. 28th, Nashua, N. H., State College, Pa. 30th, Las Vegas, N. Mex.

MISCELLANEOUS PHENOMENA.

FOREST AND PRAIRIE FIRES.

Owing to the dry weather of November and previous months in the Mississippi, Missouri, and Ohio valleys, forest fires have been very prevalent, especially during November. The loss of much property has resulted, and at times navigation on rivers has been rendered dangerous on account of the prevalence of dense smoke. The following are some of the many reports which have reached this office concerning these fires:

Butlerville, Jennings Co., Ind.: extensive forest fires prevailed in this county from the 3d to the 8th, doing much damage to fences and timber.

Little Rock, Ark.: very extensive forest fires were raging throughout the state from the 5th to 7th, 12th to 15th, and from the 18th to 22d, causing much damage to crops and fences; the smoke was so dense that at times it was impossible to see objects one hundred yards distant.

Cairo, Ill.: dense smoke overspread this region during the 5th, caused by extensive fires in what is known as the "cypress swamps" in Missouri; the fires reached from Commerce, Mo., thirty-five miles north of Cairo, to New Madrid, seventy-five miles to the southward of this city. In the surrounding country the fires have spread rapidly through "Cashe" bottom until the greater part of its area has been swept by the flames. The smoke was so dense after 6 p. m. that the navigation on the rivers was partially suspended for a distance of forty miles along the Ohio River and for one hundred miles along the Mississippi River. Similar conditions prevailed on the 6th, 7th, and 8th; on the last date the fires reached what is known as the "Island," to the northeast of the city, and extended along the trestle of the Mobile and Ohio Railroad. On the 11th the forest fires were still burning in many places, though not so widespread as previously, rains having checked them somewhat, and the smoke did not interfere with navigation. On the 15th the fires again increased and light smoke prevailed during the entire day and night; on this date the transfer steamers were retarded in making their trips on account of smoke, and like conditions prevailed on the 16th, 17th, 18th, 21st, and 22d. The forest fires were extinguished by the snow on the 28th.

Bismarck, Dak.: extensive prairie fires were observed in the north on the 4th and 5th, and in the northeast and south on the 6th.

Fort Yates, Dak.: extensive prairie fires occurred to the west and northwest of station on the 5th, 6th, and 16th.

Fort Supply, Ind. T.: large prairie fires were raging south of this place on the 6th.

Valentine, Cherry Co., Nebr.: large prairie fires occurred about ten miles southwest of this place on the evening of the 6th.

Middlebrook, Randolph Co., W. Va.: the atmosphere was very smoky on the 7th, due to extensive forest fires which were burning about six miles west of this place.

Erie, Pa.: the forest fires in this section were extinguished by the rain of the 10th, on which date the air was filled with smoke from the smothered fires.

Memphis, Tenn.: during the 15th, 16th, and 17th the atmosphere was filled with dense smoke from forest fires in Arkansas; the rain of the 25th is reported to have subdued the fires.

Milan, Gibson Co., Tenn., 16th: the surrounding country has been enveloped in smoke since the 4th, caused by fires; farmers have sustained heavy losses.

Grand Haven, Mich.: several forest fires started east of this place on the 16th and made considerable progress; by the 18th the fires were burning fiercely over an area of about three miles, but the rain and snow on the 19th quenched the flames.

Shreveport, La.: extensive forest fires prevailed in Bossier parish, northeast of this city, on the 18th; reports from the burning district received on the 19th stated that several houses and barns had been destroyed.

Nashville, Tenn., 18th: destructive forest fires have prevailed in southwest Tennessee and Arkansas during the past five days, and on this date are still raging fiercely; many houses and much valuable stock and timber have been destroyed by the flames.

Louisville, Ky.: the atmosphere was filled with smoke during the 18th, caused by forest fires which were burning to the south of this city. On the morning of the 19th it was so dark as to render artificial light necessary.

Laconia, Harrison Co., Ind.: owing to forest fires in various localities and the high westerly winds on the 19th the smoke became so dense as to cause darkness to such a degree that it was difficult to see even a short distance, and steamers on the Ohio River were compelled to stop running at midday. Forest fires were of almost daily occurrence prior to the 23d, several houses, barns, fences, and much timber were burned; the rain which fell on the 23d soon checked the progress of the fires.

Lamar, Mo.: forest fires occurred on the 18th and 19th to the west of this place; the telegraph poles were burned, interrupting communication.

Oxford, Miss., 20th: the smoky condition of the atmosphere during the past few days was due to forest fires in western Tennessee and eastern Arkansas.

Fort Smith, Ark.: the atmosphere on the 21st was filled with smoke from extensive forest fires in the adjoining states.

Springfield, Mo., 22d: dense smoke has enveloped this section during the past few days, due to the extensive forest fires which have prevailed south of this city.

Lead Hill, Boone Co., Ark., 30th: dense smoke from forest fires filled the air on the 5th, 18th, 19th, 21st, 22d, and 23d; it is reported that several farm houses were burned and much other damage done by forest fires in various sections of the state.

Wauseon, Fulton Co., Ohio, 30th: the prairies about five miles southwest of here were on fire during the greater part of the month; forest fires prevailed about the 15th in the timber lands fifteen miles northeast of this place.